



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,856	08/29/2003	Kenichi Sato	25-254	7412

7590

03/05/2004

Arnold International  
P.O. BOX 129  
Great Falls, VA 22066

EXAMINER
----------

THOMPSON, TIMOTHY J

ART UNIT	PAPER NUMBER
----------	--------------

2873

DATE MAILED: 03/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/650,856

Applicant(s)

SATO, KENICHI

Examiner

Timothy J Thompson

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 2 and 4-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Volk(U.S. patent No. 4,721,378).

Regarding claim 16 Volk discloses a single focus lens that is formed of only three lens components(fig 4), in order from the object side, as follows: a first lens component(fig 4, A) that has positive reactive power and includes a first lens element(fig 4, A); an aperture diaphragm(fig 4, E); a second lens component that has positive reactive power(fig 5, B) is made of plastic with an aspheric surface (Col 5, lines 1-5 and col 3, lines 40-55); and a third lens component that has positive refractive power(fig 5, C) are made of plastic with an aspheric surface(Col 5, lines 1-5 and col 3, lines 40-55); wherein the following conditions are satisfied:  $f_1/f = 4.339$  (col 3, lines 40-45 which states that all three lenses have the same focal distance, 9.69, therefore  $F_1/F$  falls within the required range).

Regarding claim 17, Sekiya et al. discloses first lens component consists of a first lens element(fig 4, A).

Regarding claim 18, Sekiya et al. discloses second lens component consists of a second lens element(fig 4, B).

Regarding claim 19, Sekiya et al. discloses second lens component consists of a second lens element(fig 4, B).

Regarding claim 20, Sekiya et al. discloses third lens component consists of a third lens element(fig 4, C).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 16, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekiya et al.(5,828,498) in view of Noda(6,259,570).

Regarding claim 1, 16 Sekiya et al. discloses a single focus lens that is formed of only three lens components(fig 5), in order from the object side, as follows:  
a first lens component(fig 5, I) that has positive reactive power and includes a first lens element(fig 5, r1-r2); an aperture diaphragm(fig 5, 33S); a second lens component that has positive reactive power(fig 5, II); and a third lens component that has positive refractive power(fig 5, III); wherein the following conditions are satisfied:  $f1/f = 4.339$

Art Unit: 2873

and  $v_1 = 40.8$  (third embodiment). Sekiya does not disclose the second and third lens elements are made of plastic and each have an aspheric surface. However, Noda discloses the second and third lens elements are made of plastic(col 6, lines 26-35 stating that the use of plastic and aspherical lenses improves coma and aspherical aberrations as well as reduces cost) and each have an aspheric surface(table 18). It would have been obvious to one skilled in the art, at the time of the invention, to use both plastic and aspherical lenses for both the second and third lens components as shown by Noda in the lens system of Sekiya et al., since as shown by Noda using both plastic and aspherical lenses for both the second and third lens components are commonly used for both cost reduction and coma and aspherical aberration correction.

Regarding claim 3, 19, Sekiya et al. discloses second lens component consists of a second lens element(fig 5, r4-r5).

### ***Allowable Subject Matter***

Claims 2, 4-15, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With the allowable features being; the first lens component consists of said first lens element; the third lens component consists of said third lens element; the shape of the second lens surface.

### **Conclusion**

Art Unit: 2873

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Thompson whose telephone number is (571) 272-2342. If the examiner can not be reached his supervisor, Georgia Epps, can be reached on (571) 272-2328.

  
T.J.T.  
2/27/04